

**CS 120 Fall 2016 PRACTICE QUIZ 5: For Loops**

NAME: \_\_\_\_\_

Look at the following code fragment and answer questions Q1-Q3 below based on this code:

```
// Loop 1
for(int i=0; i < 677; i++)
    { g.drawString("i= " + i, 10, 30*i ); }
```

Q1. How many times will the **body** of the loop (consisting of the g.drawString() statement) be executed? \_\_\_\_\_

Q2. How many times will the **condition** (i.e., "i < 677" of the loop be checked? \_\_\_\_\_

Q3. What is the last value of the variable "i" that gets printed to the graphics window? \_\_\_\_\_

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Look at the following code fragment and answer questions Q4-Q6 below based on this code:

```
// Loop 2
int i;
for(i=200; i>0; i=i-1)
    { System.out.println(""+ i);}
System.out.println("Last value of i is: " + i);
```

Q4. How many times will the **body** of the loop (consisting of the System.out.println() statement) be executed? \_\_\_\_\_

Q5. How many times will the **condition** (i.e., "i>0") of the loop be checked? \_\_\_\_\_

Q6. What is the value of the variable "i" that gets printed to the console window in the last line? \_\_\_\_\_

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Look at the following code fragment and answer questions Q5-Q9 below based on this code:

```
// Loop 2
int i;
for(i=1; i<100; i=i*3)
    { System.out.println("Loop variable i is " + i);}
System.out.println("Last value of i is: " + i);
```

Q7. How many times will the **body** of the loop (consisting of the System.out.println() statement) be executed? \_\_\_\_\_

Q8. How many times will the **condition** (i.e., "i<100") of the loop be checked? \_\_\_\_\_

Q9. Show all the lines of output printed to the console by the code above. (The first line is given.)

```
Loop variable i is 1
```

Look at the following code fragment and answer questions Q1-Q3 below based on this code:

```
// Loop 1
for(int i=0; i < 677; i++)
    { g.drawString("i= " + i, 10, 30*i ); }
```

Q1. How many times will the **body** of the loop (consisting of the g.drawString() statement) be executed? 677

Q2. How many times will the **condition** (i.e., "i < 677" of the loop be checked? 678

Q3. What is the last value of the variable "i" that gets printed to the graphics window? 678

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Look at the following code fragment and answer questions Q4-Q6 below based on this code:

```
// Loop 2
int i;
for(i=200; i>0; i=i-1)
    { System.out.println(""+ i);}
System.out.println("Last value of i is: " + i);
```

Q4. How many times will the **body** of the loop (consisting of the System.out.println() statement) be executed? 200

Q5. How many times will the **condition** (i.e., "i>0") of the loop be checked? 201

Q6. What is the value of the variable "i" that gets printed to the console window in the last line? 0

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Look at the following code fragment and answer questions Q5-Q9 below based on this code:

```
// Loop 2
int i;
for(i=1; i<100; i=i*3)
    { System.out.println("Loop variable i is " + i);}
System.out.println("Last value of i is: " + i);
```

Q7. How many times will the **body** of the loop be executed? 5

Q8. How many times will the **condition** (i.e., "i<100") of the loop be checked? 6

Q9. Show all the lines of output printed to the console by the code above. (The first line is given.)

```
Loop variable i is 1
Loop variable i is 3
Loop variable i is 9
Loop variable i is 27
Loop variable i is 81
Last value of i is: 243
```